that a protrusion is provided at the side of the locking groove **281** and a guide part along which the protrusion moves is provided at the side of the locking part **271**.

[0094] After the locking part **271** is inserted into the locking groove **281**, the locking part **271** needs to be fixed in the locking groove **281** so that the locking part **271** does not arbitrarily leave the locking groove **281** to release the locked state. The locking part **271** moves along the guide part **283** to be positioned at a fixing part **284** and then fixed.

[0095] The guide part **283** may be provided to protrude from an inside surface of the handle **28** which forms the locking groove **281**. For example, the guide part **283** may be provided to protrude from an upper inside surface of the handle **28** which forms the locking groove **281**. Here, the engaging protrusion **271***a* may be formed to protrude from an upper surface of the locking part **271**.

[0096] The guide part **283** may include a first guide part **283***a* provided at an entrance side of the locking groove **281** into which the locking part **271** enters, and a second guide part **283***b* bent from the first guide part **283***a*. The first guide part **283***a* may be formed to be inclined from the front to the rear. The first guide part **283***a* may guide the engaging protrusion **271***a* to move rearward. When the locking part **271** moves along the first guide part **283***a*, the locking part **271** may move toward a side of the elastic member accommodating part **273** at which the elastic member **274** is positioned.

[0097] The second guide part **283***b* may be formed to be inclined from the rear to the front. The second guide part **283***b* may guide the engaging protrusion **271***a* to return to the front. When the locking part **271** moves along the second guide part **283***b*, the locking part **271** may return to the front due to the elastic force of the elastic member **274**. The engaging protrusion **271***a* may be guided by the second guide part **283***b* to be positioned at the fixing part **284**. The engaging protrusion **271***a* is engaged by the second guide part **283***b* formed to be inclined and may be fixed in a state of being positioned at the fixing part **284** unless due to an external force.

[0098] To release the locked state, a user may exert an external force to rotate the operation part **27** in the other direction. The engaging protrusion **271***a* may leave the locking groove **281** by sequentially passing through the second guide part **283***b* and the first guide part **283***a*. Thereby, the engaging protrusion **271***a* may leave the locking groove **281** to be released from the locked state.

[0099] An inside wall **282** which connects an upper surface and a lower surface may be positioned at one side of the locking groove **281**. Specifically, the one side of the locking groove **281** is opened to allow the locking part **271** to enter, and the other side is blocked by the inside wall **282** to hinder the locking part **271** from moving further. The inside wall **282** may serve the role of a stopper which may restrict a movement of the locking part **271**.

[0100] As described above, with configurations of the engaging protrusion **271***a* and the guide part **283**, the locking part **271** may be inserted into the locking groove **281** and locked without any other locking mechanism. Without an operation of releasing the locked state by any other locking mechanism, a user may exert an external force to rotate the operation part **27** so that the locking part **271** leaves the locking groove **281** to release the locked state.

[0101] FIG. **11** is a view illustrating a lower cover and a portion of a grill of a cyclone dust collector according to one embodiment, FIG. **12** is a view illustrating a portion of a grill of a cyclone dust collector according to one embodiment, and FIG. **13** is a view illustrating a coupled state of a lower cover and a grill of a cyclone dust collector according to one embodiment.

[0102] Referring to FIGS. **11** to **13**, the lower cover **21** of the cyclone dust collector **2** according to one embodiment may be locked in a state in which it is closed by the grill assembly **24**. The locking hole **242** may be formed at the grill assembly **24**, and the lower cover **21** may be provided with the locking part **212** which may be inserted into the locking hole **242**. A plurality of locking parts **212** and a plurality of locking holes **242** may be provided.

[0103] Each of the locking parts **212** may be provided to protrude from an upper surface of the lower cover **21** in a bent form. The locking part **212** extends upward from the lower cover **21**, and an end part thereof may be formed to be bent toward an outer diameter of the lower cover **21**.

[0104] For example, the locking parts **212** may include a first locking part **212***a* and a second locking part **212***b* spaced apart from the first locking part **212***a* by a predetermined distance. The first locking part **212***a* and the second locking part **212***b* protrude upward from the upper surface of the lower cover **21**, and an end part of the first locking part **212***a* is bent to face the second locking part **212***b* and an end part of the second locking part **212***b* is bent to face the first locking part **212***a*.

[0105] A hole **213** through which the locking part **212** passes may be formed at the lower cover **21**. The locking part **212** is provided to linearly move in the hole **213**. When a plurality of locking parts **212** are provided, a plurality of holes **213** may be provided to correspond to the locking parts **212**. When the locking part **212** includes the first locking part **212***a* and the second locking part **212***b*, the hole **213** may include a first hole **213***a* through which the first locking part **212***a* passes and a second hole **213***b* through which the second locking part **212***b* passes.

[0106] A width W**2** of the hole **213** may be formed to be greater than a width W**1** of the locking part **212**. The locking part **212** may be provided to be movable within the width W**2** of the hole **213**.

[0107] An elastic member **214** which delivers an elastic force to the locking part **212** may be further provided at the lower cover **21**. The elastic member **214** provides the elastic force in a direction of pushing the locking part **212** toward an outer side of the hole **213**. When an external force is removed after the locking part **212** moved toward an inner side of the hole **213** due to an external force, the locking part **212** may be returned to the outer side of the hole **213** by the elastic force of the elastic member **214**. Here, the inner side of the hole **213** refers to a direction in which the approximate center of the lower cover **21** is positioned and the outer side of the hole **213** refers to an outer diameter direction of the lower cover **21**.

[0108] The locking hole **242** may be positioned at a lower side of the grill **240**. In a state in which the grill assembly **24** is installed at the cyclone dust collector **2** and the lower cover **21** is opened, when the lower cover **21** is closed, the locking part **212** may be pressed by the grill **240** and moved toward the inner side of the hole **213**. When an end part of the locking part **212** is inserted into the locking hole **242**, the locking part **212** may be moved toward the outer side of the locking hole **242** due to the elastic force of the elastic member **214**. With the end part of the locking part **212**